Common Imagery Exploitation Segment (CIES)

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CIES Status

- CIES FAT completed at Lockheed Martin in May
- TCTO shipment to DGS-2 – June 3
- Installation at DGS-2 began June 7
- Phase 1 Integration completed June 26
  - Syers 2 imagery throughput issue identified during operational “Stress Test” preceding OUE.
    - Dual Mission (Syers2/ASARS playback and 20 Analysts)
    - SFEP to TISM transfer rate (Syers2 Only) impacting operations Time Critical Target (TCT) timeline (7.5 Minutes vice 5 Minutes)
      - Measured SFEP to TISM @ 10 Mbytes/Second under Stress Load
      - Required SFEP to TISM @ 22.5 Mbytes/Second
      - Current TISM architecture (SUN E4500) with Ciprico 2210 RAIDs tuned at maximum capacity
  - CIES Workstation Blade 2500 internal disk drive determined to be too small (single 36 Gig)
    - Recommendation to upgrade to dual 73 Gig drives

CIES Status

- Phase 1 Continued…

- Unable to continue with Operation User Evaluation (OUE) and Phase 2 integration until solution to transfer rate resolved
- Proposed solution CIES ECP#2:
  - Purchase and install two 73 Gig disk drives into each of the 44 CIES Blade 2500 workstations (22 per site)
  - Add New TISM Secondary Processor (Slave) to perform the Multilevel Data Server functionality for the TISM
    - Proposed SUN V440 SunFire processor utilizing Ciprico 2210 RAIDS
  - Proposal Submitted 26 July 04
    - First Delivery of MLDS Data Server solution will be to DGS-2 thirty days after receipt of offer

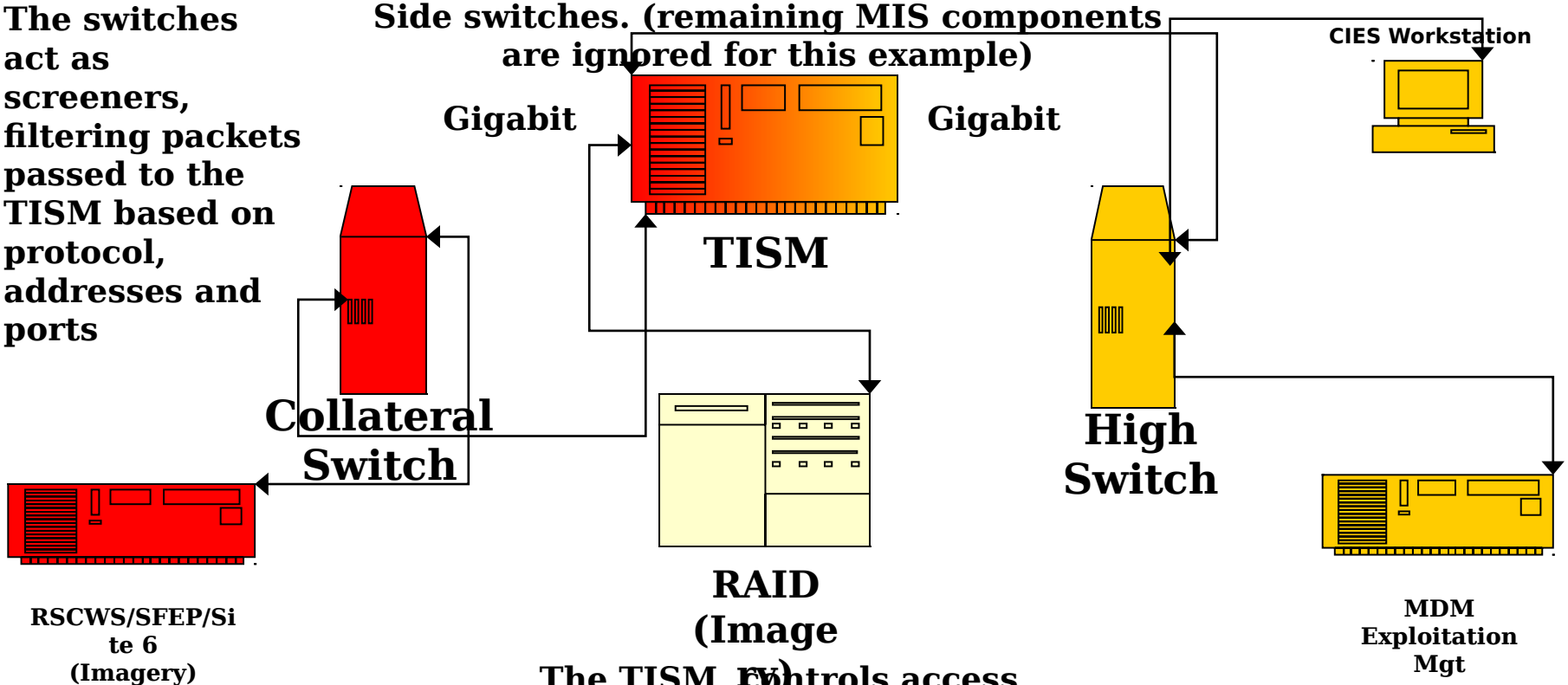
Revised CIES Implementation Plan

- Travel to DGS-1 and begin Phase 1 integration effort August 2 (approx 17 Days to complete)
  - Modified Site Integration Plan (SIP)
    - Coordinated with DGS-1 Operations
- Develop and deliver TISM Secondary Data Server to DGS-2 (Approx Sept 1 delivery)
  - Integrate at DGS-2 with Phase 1 configuration (Est 7 days)
    - Perform SAT to include Operations defined Stress Test
      - Repeat of original Phase 1 Stress Test
    - Validate SFEP to TISM data rate meet/exceed 22.5 MBytes/second
- Perform DGS-2 OUE and complete Phase 2 effort (Est 21 Days)
- Travel to DGS-1 and integrate TISM Secondary Data Server with the Phase 2 effort.

Current CIES TISM

The TISM will connected via Gigabit Ethernet to both the Collateral and High Side switches. (remaining MIS components are ignored for this example)

The switches act as screeners, filtering packets passed to the TISM based on protocol, addresses and ports



The TISM controls access to a RAID. The RAID is used for Imagery ingest, staging and Publication

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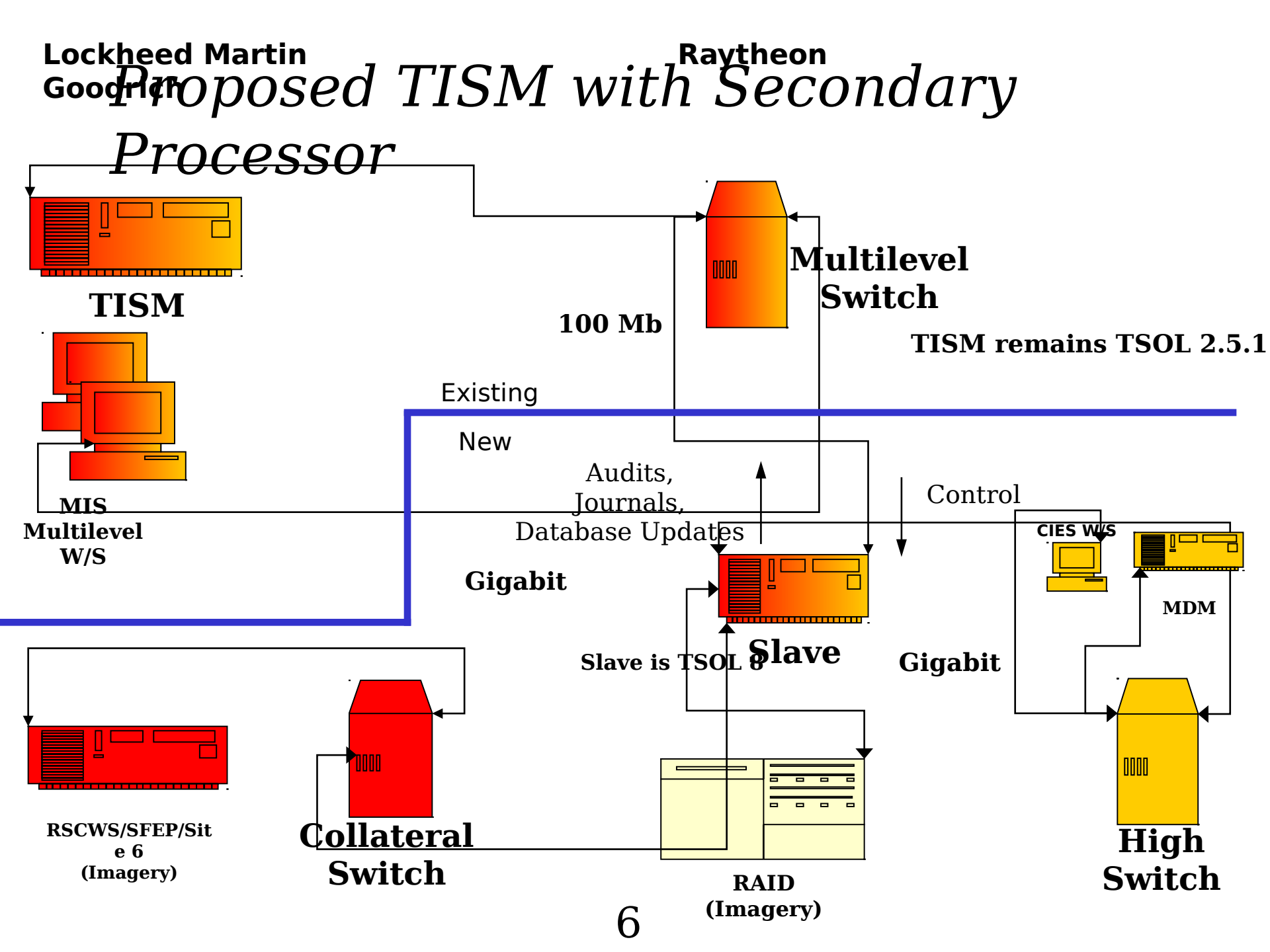
Proposed TISM with Secondary Processor



CIES Mission Support Capabilities

- Predator via VPC to CIES workstations
- SYERS,SYERS2,ASARS,ASARS2A via RSCWS/SFEP through CIES TISM to MDM and CIES workstations
- MASINT (Raw ASARS data) via current FIDO
  - Temporary solution
  - TISM to be modified to process MASINT Data
- GlobalHawk
  - Current operational concept (pre-CIES) to remain until follow on upgrade of GlobalHawk Task Manager Effort.
- 4 Simultaneous missions via CIES thread through TISM (2 Missions/MDM)
  - Limitations due to system load
    - » Any combination of ASARS,ASARS2A or Legacy SYERS
    - » Single SYERS2 thread due to front end and TISM loading